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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/845,661 | 04/30/2001 | Mototaka Iwata | MIZ34 | 2740 |

6980 7590 01/13/2003

TROUTMAN SANDERS LLP
BANK OF AMERICA PLAZA, SUITE 5200
600 PEACHTREE STREET, NE
ATLANTA, GA 30308-2216

EXAMINER

DUONG, THANH P

ART UNIT PAPER NUMBER

3711

DATE MAILED: 01/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

HCT

Office Action Summary

Application No.

09/845,661

Applicant(s)

IWATA ET AL.

Examiner

Tom P Duong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 and 6. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-18 and 39-57 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Werner et al. (6,319,150). Werner et al. discloses a golf club head having a striking face with variation of thickness in the face where the greatest thickness is at the center of the face plate (Figs. 3-10). Werner further describes that the face is made thicker at the center of the face to withstand the largest stresses as a result from ball impact (Col. 2, lines 34-65) and such design allows a golfer to hit the ball anywhere on the face surface other than the center of the face. Thus, it is inherent and obvious in view of Werner that the face structure of Werner has a large sweet spot area or flexural range similar to the claimed invention. With respect to the spring load, it is inherent that golf manufacturers will test the club head to ensure that it can withstand ball impact and comply with USGA test procedure.

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2. Claims 19-20, 59-60, and 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werner 150' as applied to claims 1-18 above, and further in view of Schmidt et al. (5,318,300). The prior art discloses that claimed invention except variation of thickness from heel to toe. Schmidt et al. teaches that the striking face have variable thickness from heel to toe region to resist crackling and buckling and provide more efficient energy transfers to the ball (Summary of Invention). Thus, it would have been obvious in view of Schmidt to modify the golf club of prior art to include variable thickness as taught by Schmidt to benefit the advantages as described above.

3. Claims 21-38, 58, 61-64, 68-70, and 72-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art as applied in claims 1-20 above, and further in view of Gallaway et al. (6,354,962). The prior art discloses the claimed invention except the variation of thicknesses of the striking face are divided in several regions to optimize the flexural range or sweet spot area. Gallaway et al. teaches that the striking face are divided into several concentric regions to improve face structural strength and coefficient of restitution. (Col. 8, lines 10-65). Thus, it would have been obvious and desirable in view of Gallaway to one having ordinary skill in the art to modify the golf club of the prior art to include concentric regions as taught by Gallaway to optimize the sweet spot area or flexural range, face structural strength, and coefficient of restitution. The thickness in each region appears to be an obvious variation of Gallaway's face structure at most thru routine optimization.

4. Claim 65 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art as applied in claims 1-64 above, and further in view of Kosmatka (6,007,432). The prior art discloses the claimed invention except thickness in the periphery region of the sole is thicker than the periphery region located in the crown area. Kosmatka discloses a golf club with a contoured face where the thickest regions are at the face/sole and face/crown area (Col. 3, lines 39-45) and such design improve stiffness and structural integrity. Thus, it would have been obvious in view of Kosmatka to modify the golf club of the prior art to include a contoured club face to benefit the above advantages.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (703) 305-4559. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Sewell can be reached on (703) 308-2126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7768 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4148.

Tom Duong
January 8, 2003


Paul T. Sewell
Supervisory Patent Examiner
Group 3700